Application No.: 10/551,805 MAT-8751US

Amendment Dated: April 3, 2007

Reply to Office Action of: January 3, 2007

## Remarks/Arguments:

Claims 1-6 are pending in the above-identified application. Claim 3 is cancelled.

Claims 1 and 3-6 were rejected under 35 U.S.C. § 102 (b) as being anticipated by Kosaki. Claim 1 is amended to include,

... determining (1) whether to align the plurality of antenna elements in one direction so that antenna directivity is in said direction and (2) whether to align at least one of the plurality of antenna elements in a direction different from at least another one of the plurality of antenna elements so that antenna directivity is omni directional. (Emphasis added).

Basis for these amendments may be found in the specification Page 7, lines 17-24, Fig. 2, page 9, lines 5-7 and Fig. 4. With regard to claim 1, Kosaki does not disclose or suggest determining (1) whether to align the plurality of antenna elements **in one direction** so that antenna directivity is in said direction **and** (2) whether to align at least one of the plurality of antenna elements in a direction different from at least another one of the plurality of antenna elements so that antenna directivity is **omni directional**.

Kosaki includes a tracking unit 2 and a control unit 6C. (Fig. 11). The Examiner asserts that the tracking unit 2 and the control unit 6C of Kosaki are the same as the antenna controller an optimum directivity calculator, respectively, of claim 1. (Office Action, page 2). The tracking unit 2 in Kosaki, however, is "for adjusting a pointing direction of the antenna 1 to a direction in which an electromagnetic wave arrives." (Col. 13, lines 17-19). That is, the tracking unit 2 is adjusted to a single direction. Thus, the control unit 6C controls the tracking unit 2 to be adjusted to a single direction.

The exemplary embodiment of Applicants' invention includes a directivity variable antenna 12 that may include a plurality of antenna elements. (Fig. 1). The directivity calculator 14 may determine to align the plurality of antenna elements in one direction so that antenna directivity is in the one direction. For example, the

Application No.:

10/551,805

Amendment Dated:
Reply to Office Action (

April 3, 2007

Reply to Office Action of:

January 3, 2007

directivity calculator 14 may determine to align the plurality of antenna elements with the broadcast tower. (Page 7, lines 17-24 and Fig. 2). Thus, the antenna elements are aligned in one direction. Alternatively, components of the desired broadcast signal may be received from different directions. (Page 9, lines 5-7 and Fig. 4) Thus, the directivity calculator 14 may then determine to align at least one of the plurality of antenna elements in a direction different from at least another one of the plurality of antenna elements so that antenna directivity is omni directional.

Applicant's claimed features of **determining** (1) **whether to align** the antenna so that antenna directivity is **in one direction and** (2) **whether to align** the antenna so that antenna directivity is **omni directional** are advantageous over the prior art because the antenna can calculate **both a single direction pattern and an omni-directional pattern** to improve the response of the broadcast signal.

Kosaki does not disclose or suggest the features of claim 1. Thus, claim 1 is not subject to rejection under 35 U.S.C. § 102(b). Claims 3-6 depend from claim 1. Accordingly, claims 3-6 are not subject to rejection under 35 U.S.C. § 102(b) in view of Kosaki for at least the same reasons as claim 1.

Claim 2 was rejected under 35 U.S.C. § 103 (a) as being unpatentable in view of Kosaki and Toda et al. Kosaki is described above. Toda et al. includes an adaptive array antenna controller that adaptively controls weighting coefficients of multiple antenna elements of an array antenna based on a digital signal outputted from an analog-to-digital converter receiving a weighted analog signal received from the array antenna. Toda et al. does not disclose or suggest determining (1) whether to align the plurality of antenna elements in one direction so that antenna directivity is in said direction and (2) whether to align at least one of the plurality of antenna elements in a direction different from at least another one of the plurality of antenna elements so that antenna directivity is omni directional.

Thus, neither Kosaki, Toda et al., nor their combination disclose or suggest the features of claim 1. Thus, claim 1 is not subject to rejection under 35 U.S.C. § 103(a) in view of Kosaki and Toda et al. Claim 2 depends from claim 1. Accordingly,

Application No.:

10/551,805

Amendment Dated:

April 3, 2007

Reply to Office Action of:

January 3, 2007

claim 2 is also not subject to rejection under 35 U.S.C. § 103(a) in view of Kosaki and Toda et al. for at least the same reasons as claim 1.

In view of the foregoing amendments and remarks, this Application is in condition for allowance which action is respectfully requested.

pectfully submitted

Lawrence E. Ashery, Reg. No. 34/515 Attorney for Applicants

MAT-8751US

DFD/dfd/ds

Dated: <u>April 3, 2007</u>

P.O. Box 980 Valley Forge, PA 19482-0980 (610) 407-0700

The Commissioner for Patents is hereby I hereby certify that this correspondence is being deposited authorized to charge payment to Deposit Account No. 18-0350 of any fees associated with this communication.

with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

April 3, 2007

Deborah Spratt Deboral Spratt

100333